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|   |   |    |    | Application Number         | 10/692,833       |  |
|   |   |    |    | Filing Date                | 2003-10-23       |  |
|   |   |    |    | First Named Inventor       | J. Rodney Walton |  |
|   |   |    |    | Art Unit                   | 2618             |  |
|   |   |    |    | Examiner Name              | Simon Nguyen     |  |
| Sheet   | 1 | of | 18 | Attorney Docket No: 030060 |                  |  |

| U.S. PATENT DOCUMENTS |                          |   |                                   |  |   |
|-----------------------|--------------------------|---|-----------------------------------|--|---|
| Examiner<br>Initials* | Cite<br>No. <sup>1</sup> | Document Number                             | Publication<br>Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns,<br>Lines, Where<br>Relevant Passages<br>or Relevant Figures<br>Appear |
|                       |                          | Number-Kind Code <sup>2(f)</sup><br>(known) |                                   |  |   |
|                       | 001                      | US5241544                                   | 08-31-1993                        | JASPER; Steven C., et al.                          |   |
|                       | 002                      | US5295159                                   | 03-15-1994                        | KERPEZ; Kenneth J.                                 |   |
|                       | 003                      | US5471647                                   | 11-28-1995                        | GERLACH; Derek, et al.                             |   |
|                       | 004                      | US5606729                                   | 02-25-1997                        | D'amico; Thomas                                    |   |
|                       | 005                      | US5818813                                   | 10-06-1998                        | SAITO; Masafumi, et al.                            |   |
|                       | 006                      | US5832387                                   | 11-03-1998                        | BAE; Hee-Moon, et al.                              |   |
|                       | 007                      | US5867478                                   | 02-02-1999                        | BAUM; Kevin Lynn, et al.                           |   |
|                       | 008                      | US5886988                                   | 03-23-1999                        | YUN; Louis C., et al.                              |   |
|                       | 009                      | US5973638                                   | 10-26-1999                        | ROBBINS; David F., et al.                          |   |
|                       | 010                      | US6084915                                   | 07-04-2000                        | WILLIAMS; Richard G. C.                            |   |
|                       | 011                      | US6097771                                   | 08-01-2000                        | FOSCHINI; Gerard Joseph                            |   |
|                       | 012                      | US6115354                                   | 09-05-2000                        | WECK; Christfried                                  |   |
|                       | 013                      | US6131016                                   | 10-10-2000                        | GREENSTEIN; Lawrence<br>Joel, et al.               |   |
|                       | 014                      | US6141542                                   | 10-31-2000                        | KOTZIN; Michael D., et al.                         |   |
|                       | 015                      | US6141567                                   | 10-31-2000                        | YOUSSEFMIR; Michael, et<br>al.                     |   |
|                       | 016                      | US6163296                                   | 12-19-2000                        | LIER; Erik, et al.                                 |   |
|                       | 017                      | US6167031                                   | 12-26-2000                        | OLOFSSON; H.Ang.Kan<br>Gunnar, et al.              |   |
|                       | 018                      | US6178196                                   | 01-23-2001                        | NAGUIB; Ayman F., et al.                           |   |
|                       | 019                      | US6232918                                   | 05-15-2001                        | WAX; Mati, et al.                                  |   |
|                       | 020                      | US6266528                                   | 07-24-2001                        | FARZANEH; Farhad                                   |   |

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|                       |                          | Number-Kind Code <sup>2(f)</sup><br>(known) |                                   |  |   |
|                       | 021                      | US6278726                                   | 08-21-2001                        | MESECHER; David K., et al.                         |   |
|                       | 022                      | US6298035                                   | 10-02-2001                        | HEISKALA; Juha                                     |   |
|                       | 023                      | US6308080                                   | 10-23-2001                        | BURT; Donald G., et al.                            |   |
|                       | 024                      | US6314289                                   | 11-06-2001                        | EBERLEIN; Ernst, et al.                            |   |
|                       | 025                      | US6317612                                   | 11-13-2001                        | FARSAKH; Christof                                  |   |
|                       | 026                      | US6339399                                   | 01-15-2002                        | ANDERSSON; Soren, et al.                           |   |
|                       | 027                      | US6345036                                   | 02-05-2002                        | SUDO; Hiroaki, et al.                              |   |
|                       | 028                      | US6346910                                   | 02-12-2002                        | ITO; Tei   |   |
|                       | 029                      | US6377812                                   | 04-23-2002                        | RASHID-FARROKHI;<br>Farrokh, et al.                |   |
|                       | 030                      | US6385264                                   | 05-07-2002                        | TERASAWA; Daisuke, et al.                          |   |
|                       | 031                      | US6452981                                   | 09-17-2002                        | RALEIGH; Gregory G., et al.                        |   |
|                       | 032                      | US6473467                                   | 10-29-2002                        | WALLACE; Mark, et al.                              |   |
|                       | 033                      | US6492942                                   | 12-10-2002                        | KEZYS; Vytas                                       |   |
|                       | 034                      | US6532562                                   | 03-11-2003                        | CHOU; Philip A., et al.                            |   |
|                       | 035                      | US6545997                                   | 04-08-2003                        | BOHNKE; Ralf, et al.                               |   |
|                       | 036                      | US6574211                                   | 06-03-2003                        | PADOVANI; Roberto, et al.                          |   |
|                       | 037                      | US6574271                                   | 06-03-2003                        | MESECHER; David K., et al.                         |   |
|                       | 038                      | US6594798                                   | 07-15-2003                        | CHOU; Philip A., et al.                            |   |
|                       | 039                      | US6597682                                   | 07-22-2003                        | KARI; Hannu  |   |

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|                       |                          | Number-Kind Code <sup>2(f)</sup><br>(known) |                                   |  |   |
|                       | 040                      | US6608874                                   | 08-19-2003                        | BEIDAS; Bassel F., et al.                          |   |
|                       | 041                      | US6611231                                   | 08-26-2003                        | CRILLY; Jr. William J., et al.                     |   |
|                       | 042                      | US6654590                                   | 11-25-2003                        | BOROS; Tibor, et al.                               |   |
|                       | 043                      | US6668161                                   | 12-23-2003                        | BOROS; Tibor, et al.                               |   |
|                       | 044                      | US6683916                                   | 01-27-2004                        | SARTORI; Philippe Jean-Marc, et al.                |   |
|                       | 045                      | US6690660                                   | 02-10-2004                        | KIM; Younglok, et al.                              |   |
|                       | 046                      | US6728233                                   | 04-27-2004                        | PARK; Jin-Soo, et al.                              |   |
|                       | 047                      | US6738020                                   | 05-18-2004                        | LINDSKOG; Erik D., et al.                          |   |
|                       | 048                      | US6751187                                   | 06-15-2004                        | WALTON; Jay R., et al.                             |   |
|                       | 049                      | US6751444                                   | 06-15-2004                        | MEIYAPPAN; Palaniappan                             |   |
|                       | 050                      | US6751480                                   | 06-15-2004                        | KOGIANTIS; Achilles George, et al.                 |   |
|                       | 051                      | US6760388                                   | 07-06-2004                        | KETCHUM; John W., et al.                           |   |
|                       | 052                      | US6771706                                   | 08-03-2004                        | LING; Fuyun, et al.                                |   |
|                       | 053                      | US6785341                                   | 08-31-2004                        | WALTON; Jay R., et al.                             |   |
|                       | 054                      | US6785513                                   | 08-31-2004                        | SIVAPRAKASAM; Srinivas                             |   |
|                       | 055                      | US6788948                                   | 09-07-2004                        | LINDSKOG; Erik D., et al.                          |   |
|                       | 056                      | US6795424                                   | 09-21-2004                        | KAPOOR; Samir, et al.                              |   |
|                       | 057                      | US6802035                                   | 10-05-2004                        | CATREUX; Severine, et al.                          |   |
|                       | 058                      | US6850498                                   | 02-01-2005                        | HEATH; Robert W., et al.                           |   |
|                       | 059                      | US6862440                                   | 03-01-2005                        | SAMPATH; Hemanth                                   |   |

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|                       | 060                      | US6873651                                      | 03-29-2005                        | TESFAI; Yohannes, et al.                           |   |
|                       | 061                      | US6879578                                      | 04-12-2005                        | PAN; Jung-Lin, et al.                              |   |
|                       | 062                      | US6888809                                      | 05-03-2005                        | FOSCHINI; Gerard Joseph,<br>et al.                 |   |
|                       | 063                      | US6937592                                      | 08-30-2005                        | HEATH; Jr. Robert W., et<br>al.                    |   |
|                       | 064                      | US6963742                                      | 11-08-2005                        | BOROS; Tibor, et al.                               |   |
|                       | 065                      | US6965762                                      | 11-15-2005                        | SUGAR; Gary L., et al.                             |   |
|                       | 066                      | US6985434                                      | 01-10-2006                        | WU; Shiquan, et al.                                |   |
|                       | 067                      | US6987819                                      | 01-17-2006                        | THOMAS; Timothy A., et al.                         |   |
|                       | 068                      | US6990059                                      | 01-24-2006                        | ANIKHINDI; Santosh, et al.                         |   |
|                       | 069                      | US6992972                                      | 01-31-2006                        | VAN NEE; Richard                                   |   |
|                       | 070                      | US7006483                                      | 02-28-2006                        | NELSON; Jr. George<br>Rodney, et al.               |   |
|                       | 071                      | US7009931                                      | 03-07-2006                        | MA; Jianglei, et al.                               |   |
|                       | 072                      | US7012978                                      | 03-14-2006                        | TALWAR; Shilpa                                     |   |
|                       | 073                      | US7062294                                      | 06-13-2006                        | ROGARD; Roger, et al.                              |   |
|                       | 074                      | US7068628                                      | 06-27-2006                        | LI; Ye, et al.                                     |   |
|                       | 075                      | US7072410                                      | 07-04-2006                        | MONSEN; Peter                                      |   |
|                       | 076                      | US7072413                                      | 07-04-2006                        | WALTON; Jay R., et al.                             |   |
|                       | 077                      | US7088671                                      | 08-08-2006                        | MONSEN; Peter                                      |   |
|                       | 078                      | US7095709                                      | 08-22-2006                        | WALTON; Jay R., et al.                             |   |
|                       | 079                      | US7099377                                      | 08-29-2006                        | BERENS; Friedbert, et al.                          |   |

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|                                | 080                   | US7110378                                   | 09-19-2006                     | ONGGOSANUSI; Eko Nugroho, et al.                |   |
|                                | 081                   | US7110463                                   | 09-19-2006                     | WALLACE; Mark S., et al.                        |   |
|                                | 082                   | US7113499                                   | 09-26-2006                     | NAFIE; Mohammed, et al.                         |   |
|                                | 083                   | US7149254                                   | 12-12-2006                     | SAMPATH; Hemanth                                |   |
|                                | 084                   | US7151809                                   | 12-19-2006                     | KETCHUM; John W., et al.                        |   |
|                                | 085                   | US7155171                                   | 12-26-2006                     | EBERT; Paul Michael, et al.                     |   |
|                                | 086                   | US7197084                                   | 03-27-2007                     | KETCHUM; John W., et al.                        |   |
|                                | 087                   | US7200404                                   | 04-03-2007                     | PANASIK; Carl M., et al.                        |   |
|                                | 088                   | US7206354                                   | 04-17-2007                     | WALLACE; Mark S., et al.                        |   |
|                                | 089                   | US7218684                                   | 05-15-2007                     | BOLOURCHI; Nader, et al.                        |   |
|                                | 090                   | US7224704                                   | 05-29-2007                     | LU; Xiaolin, et al.                             |   |
|                                | 091                   | US7231184                                   | 06-12-2007                     | EILTS; Henry S., et al.                         |   |
|                                | 092                   | US7233625                                   | 06-19-2007                     | MA; Jianglei, et al.                            |   |
|                                | 093                   | US7238508                                   | 07-03-2007                     | LIN; Min, et al.                                |   |
|                                | 094                   | US7248638                                   | 07-24-2007                     | BANISTER; Brian C.                              |   |
|                                | 095                   | US7254171                                   | 08-07-2007                     | HUDSON; John E.                                 |   |
|                                | 096                   | US7263119                                   | 08-28-2007                     | HSU; Yungping, et al.                           |   |
|                                | 097                   | US7280625                                   | 10-09-2007                     | KETCHUM; John W., et al.                        |   |
|                                | 098                   | US7289570                                   | 10-30-2007                     | SCHMIDL; Timothy, et al.                        |   |
|                                | 099                   | US7298778                                   | 11-20-2007                     | VISOZ; Raphael, et al.                          |   |
|                                | 100                   | US7298805                                   | 11-20-2007                     | WALTON; J. Rodney, et al.                       |   |

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|   |   |    |    | Filing Date                | 2003-10-23       |
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|   |   |    |    | Art Unit                   | 2618             |
|   |   |    |    | Examiner Name              | Simon Nguyen     |
| Sheet   | 6 | of | 18 | Attorney Docket No: 030060 |                  |

| U.S. PATENT DOCUMENTS          |                       |  |                                |  |   |
|--------------------------------|-----------------------|--|--------------------------------|--|---|
| Examiner Initials <sup>a</sup> | Cite No. <sup>1</sup> | Document Number<br>Number-Kind Code <sup>2(f)</sup><br>(known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns,<br>Lines, Where<br>Relevant Passages<br>or Relevant Figures<br>Appear |
|                                | 101                   | US7310304  | 12-18-2007                     | MODY; Apurva N., et al.                            |   |
|                                | 102                   | US7317750  | 01-08-2008                     | SHATTIL; Steve J.                                  |   |
|                                | 103                   | US7324429  | 01-29-2008                     | WALTON; J. Rodney, et al.                          |   |
|                                | 104                   | US7342912  | 03-11-2008                     | KERR; Adam B., et al.                              |   |
|                                | 105                   | US7386076  | 06-10-2008                     | ONGGOSANUSI; Eko N., et al.                        |   |
|                                | 106                   | US7403748  | 07-22-2008                     | KESKITALO; Ilkka, et al.                           |   |
|                                | 107                   | US7421039  | 09-02-2008                     | MALAENDER; Laurence Eugene, et al.                 |   |
|                                | 108                   | US7480278  | 01-20-2009                     | PEDERSEN; Klaus Ingemann, et al.                   |   |
|                                | 109                   | US7492737  | 02-17-2009                     | FONG; Mo-Han, et al.                               |   |
|                                | 110                   | US7623871  | 11-24-2009                     | SHEYNBLAT; Leonid                                  |   |
|                                | 111                   | US7636573  | 12-22-2009                     | WALTON; Jay R., et al.                             |   |
|                                | 112                   | US7653415  | 01-26-2010                     | VAN ROOYEN; Pieter                                 |   |
|                                | 113                   | US20010046205  | 11-29-2001                     | EASTON; Kenneth D., et al.                         |   |
|                                | 114                   | US20020003774  | 01-10-2002                     | WANG; Zhaocheng, et al.                            |   |
|                                | 115                   | US20020018310  | 02-14-2002                     | HUNG; Tsan-Yao                                     |   |
|                                | 116                   | US20020018453  | 02-14-2002                     | YU; Yao, et al.                                    |   |
|                                | 117                   | US20020041632  | 04-11-2002                     | SATO; Kazushi, et al.                              |   |
|                                | 118                   | US20020044591  | 04-18-2002                     | LEE; Hyun-Woo, et al.                              |   |
|                                | 119                   | US20020057659  | 05-16-2002                     | OZLUTURK; Fatih M., et al.                         |   |
|                                | 120                   | US20020064214  | 05-30-2002                     | HATTORI; Toshihiro, et al.                         |   |

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| U.S. PATENT DOCUMENTS          |                       |   |                                |  |   |
|--------------------------------|-----------------------|---|--------------------------------|--|---|
| Examiner Initials <sup>a</sup> | Cite No. <sup>1</sup> | Document Number<br>Number-Kind Code <sup>2(f)</sup><br>(if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns,<br>Lines, Where<br>Relevant Passages<br>or Relevant Figures<br>Appear |
|                                | 121                   | US20020072336   | 06-13-2002                     | MOTTIER; David                                     |   |
|                                | 122                   | US20020085620   | 07-04-2002                     | MESECHER; David K.                                 |   |
|                                | 123                   | US20020085641   | 07-04-2002                     | BAUM; Kevin L.                                     |   |
|                                | 124                   | US20020098872   | 07-25-2002                     | JUDSON; Bruce A.                                   |   |
|                                | 125                   | US20020105928   | 08-08-2002                     | KAPOOR; Samir, et al.                              |   |
|                                | 126                   | US20020115473   | 08-22-2002                     | HWANG; Jong Yoon, et al.                           |   |
|                                | 127                   | US20020122381   | 09-05-2002                     | WU; Shiquan, et al.                                |   |
|                                | 128                   | US20020127978   | 09-12-2002                     | KHATRI; Bhavin S.                                  |   |
|                                | 129                   | US20020183010   | 12-05-2002                     | CATREUX; Severine E., et al.                       |   |
|                                | 130                   | US20020184453   | 12-05-2002                     | HUGHES; Suzanne M., et al.                         |   |
|                                | 131                   | US20020191535   | 12-19-2002                     | SUGIYAMA; Takatoshi, et al.                        |   |
|                                | 132                   | US20020196842   | 12-26-2002                     | ONGGOSANUSI; Eko N., et al.                        |   |
|                                | 133                   | US20030002450   | 01-02-2003                     | JALALI; Ahmad, et al.                              |   |
|                                | 134                   | US20030012308   | 01-16-2003                     | SAMPATH; Hemanth T., et al.                        |   |
|                                | 135                   | US20030048856   | 03-13-2003                     | KETCHUM; John W., et al.                           |   |
|                                | 136                   | US20030078024   | 04-24-2003                     | MAGEE; David Patrick, et al.                       |   |
|                                | 137                   | US20030095197   | 05-22-2003                     | WHEELER; Richard B., et al.                        |   |
|                                | 138                   | US20030099306   | 05-29-2003                     | NILSSON; Johan, et al.                             |   |

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| Sheet   | 8 | of | 18 | Attorney Docket No: 030060 |                  |  |

| U.S. PATENT DOCUMENTS             |                          |  |                                   |  |   |
|-----------------------------------|--------------------------|--|-----------------------------------|--|---|
| Examiner<br>Initials <sup>a</sup> | Cite<br>No. <sup>1</sup> | Document Number<br>Number-Kind Code <sup>2(f)</sup><br>(known) | Publication<br>Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns,<br>Lines, Where<br>Relevant Passages<br>or Relevant Figures<br>Appear |
|                                   | 139                      | US20030119452  | 06-26-2003                        | KIM; Sung-Hoon, et al.                             |   |
|                                   | 140                      | US20030128656  | 07-10-2003                        | SCARPA; Carl                                       |   |
|                                   | 141                      | US20030139194  | 07-24-2003                        | ONGGOSANUSI; Eko N.,<br>et al.                     |   |
|                                   | 142                      | US20030153360  | 08-14-2003                        | BURKE; Joseph P., et al.                           |   |
|                                   | 143                      | US20030157954  | 08-21-2003                        | MEDVEDEV; Irina, et al.                            |   |
|                                   | 144                      | US20030162519  | 08-28-2003                        | SMITH; Martin, et al.                              |   |
|                                   | 145                      | US20030185309  | 10-02-2003                        | PAUTLER; Joseph J., et al.                         |   |
|                                   | 146                      | US20030206558  | 11-06-2003                        | PARKKINEN; Teemu, et al.                           |   |
|                                   | 147                      | US20030235149  | 12-25-2003                        | CHAN; Albert, et al.                               |   |
|                                   | 148                      | US20030235255  | 12-25-2003                        | KETCHUM; John W., et al.                           |   |
|                                   | 149                      | US20040052228  | 03-18-2004                        | TELLADO; Jose, et al.                              |   |
|                                   | 150                      | US20040071104  | 04-15-2004                        | BOESEL; Robert W., et al.                          |   |
|                                   | 151                      | US20040082356  | 04-29-2004                        | WALTON; J. Rodney, et al.                          |   |
|                                   | 152                      | US20040085939  | 05-06-2004                        | WALLACE; Mark S., et al.                           |   |
|                                   | 153                      | US20040136349  | 07-15-2004                        | WALTON; J. Rodney, et al.                          |   |
|                                   | 154                      | US20040160987  | 08-19-2004                        | SUDO; Hiroaki, et al.                              |   |
|                                   | 155                      | US20040179627  | 09-16-2004                        | KETCHUM; John W., et al.                           |   |
|                                   | 156                      | US20040198276  | 10-07-2004                        | TELLADO; Jose, et al.                              |   |
|                                   | 157                      | US20050047384  | 03-03-2005                        | WAX; Mati, et al.                                  |   |
|                                   | 158                      | US20050111599  | 05-26-2005                        | WALTON; J. Rodney, et al.                          |   |
|                                   | 159                      | US20050120097  | 06-02-2005                        | WALTON; J. Rodney, et al.                          |   |

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|                                | 160                   | US20050128953   | 06-16-2005                     | WALLACE; Mark S., et al.                        |   |
|                                | 161                   | US20060104196   | 05-18-2006                     | WU; Shiquan, et al.                             |   |
|                                | 162                   | US20070177681   | 08-02-2007                     | CHOI; In-Kyeong, et al.                         |   |
|                                | 163                   | US20080285488   | 11-20-2008                     | WALTON; J. Rodney, et al.                       |   |
|                                | 164                   | US20080285669   | 11-20-2008                     | WALTON; J. Rodney, et al.                       |   |
|                                | 165                   | US20080285670   | 11-20-2008                     | WALTON; J. Rodney, et al.                       |   |
|                                | 166                   | US20100183088   | 07-22-2010                     | INANOGLU; Hakan                                 |   |
|                                | 167                   | US20100260060   | 10-14-2010                     | ABRAHAM; Santosh, et al.                        |   |

| FOREIGN PATENT DOCUMENTS       |                       |   |                                |   |   |                                     |
|--------------------------------|-----------------------|---|--------------------------------|---|---|-------------------------------------|
| Examiner Initials <sup>a</sup> | Cite No. <sup>1</sup> | Foreign Patent Document<br>Country Code <sup>3</sup><br>Number <sup>4</sup> Kind Code <sup>5</sup> (if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T <sup>6</sup>                      |
|                                | 168                   | AU2002259221  | 11-25-2002                     | QUALCOMM INCORPORATED [US]                      |   | <input type="checkbox"/>            |
|                                | 169                   | CA2690247A1   | 10-11-2001                     | QUALCOMM INC [US]                               |   | <input type="checkbox"/>            |
|                                | 170                   | CN1086061   | 04-27-1994                     | ERICSSON GE MOBILE COMMUNICAT.                  |   | <input type="checkbox"/>            |
|                                | 171                   | CN1308794   | 08-15-2001                     | ARRAYCOM INC. [US]                              |   | <input checked="" type="checkbox"/> |
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|                                | 173                   | DE19951525A1  | 06-07-2001                     | SIEMENS AG [DE]                                 |   | <input checked="" type="checkbox"/> |

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| Sheet   | 10 | of | 18 | Attorney Docket No: 030060 |                  |  |

| FOREIGN PATENT DOCUMENTS |                          |   |                                   |   |  |                          |
|--------------------------|--------------------------|---|-----------------------------------|---|--|--------------------------|
| Examiner<br>Initials*    | Cite<br>No. <sup>1</sup> | Foreign Patent<br>Document  | Publication<br>Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document                | Pages, Columns,<br>Lines, Where<br>Relevant<br>Passages or<br>Relevant Figures<br>Appear | T<br>6                   |
|                          |                          | Country Code <sup>3</sup><br>Number <sup>4</sup> Kind Code <sup>5</sup> (if<br>known) |                                   |   |  |                          |
|                          | 174                      | EP0762701   | 03-12-1997                        | ADVANCED DIGITAL<br>TELEVISION<br>BROADCASTING<br>LABORATORY [JP] |  | <input type="checkbox"/> |
|                          | 175                      | EP0805568A1   | 11-05-1997                        | TRW INC [US]  |  | <input type="checkbox"/> |
|                          | 176                      | EP0929172A1   | 07-14-1999                        | LUCENT TECHNOLOGIES<br>INC [US]                                   |  | <input type="checkbox"/> |
|                          | 177                      | EP0951091A2   | 10-20-1999                        | LUCENT TECHNOLOGIES<br>INC [US]                                   |  | <input type="checkbox"/> |
|                          | 178                      | EP1061446   | 12-20-2000                        | SUN MICROSYSTEMS,<br>INC. [US]                                    |  | <input type="checkbox"/> |
|                          | 179                      | EP1087545A1   | 03-28-2001                        | NATIONAL UNIV. OF<br>SINGAPORE [SG]                               |  | <input type="checkbox"/> |
|                          | 180                      | EP1117197A2   | 07-18-2001                        | LUCENT TECHNOLOGIES<br>INC [US]                                   |  | <input type="checkbox"/> |
|                          | 181                      | EP1133070A2   | 09-12-2001                        | MATSUSHITA ELECTRIC<br>IND CO LTD [JP]                            |  | <input type="checkbox"/> |
|                          | 182                      | EP1175022A2   | 01-23-2002                        | SAMSUNG<br>ELECTRONICS CO LTD<br>[KR]                             |  | <input type="checkbox"/> |
|                          | 183                      | EP1182799A2   | 02-27-2002                        | LUCENT TECHNOLOGIES<br>INC [US]                                   |  | <input type="checkbox"/> |
|                          | 184                      | EP1185015   | 03-06-2002                        | ALCATEL (FR)  |  | <input type="checkbox"/> |
|                          | 185                      | EP1185048A2   | 03-06-2002                        | NORTEL NETWORKS LTD<br>[CA]                                       |  | <input type="checkbox"/> |
|                          | 186                      | EP1265411   | 12-11-2002                        | SONY INTERNATIONAL<br>GMBH [DE]                                   |  | <input type="checkbox"/> |
|                          | 187                      | EP1315311A1   | 05-28-2003                        | FUJITSU LTD [JP]  |  | <input type="checkbox"/> |

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|   |    |    |    | Filing Date                | 2003-10-23       |  |
|   |    |    |    | First Named Inventor       | J. Rodney Walton |  |
|   |    |    |    | Art Unit                   | 2618             |  |
|   |    |    |    | Examiner Name              | Simon Nguyen     |  |
| Sheet   | 11 | of | 18 | Attorney Docket No: 030060 |                  |  |

| FOREIGN PATENT DOCUMENTS |                       |  |                                |  |   |                                     |
|--------------------------|-----------------------|--|--------------------------------|--|---|-------------------------------------|
| Examiner Initials*       | Cite No. <sup>1</sup> | Foreign Patent Document  | Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant of Cited Document    | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T <sup>6</sup>                      |
|                          |                       | Country Code <sup>3</sup><br>Number <sup>4</sup> Kind Code <sup>5</sup> (if known) |                                |  |   |                                     |
|                          | 188                   | EP1379020  | 01-07-2004                     | NATIONAL UNIVERSITY OF SINGAPORE.                  |   | <input type="checkbox"/>            |
|                          | 189                   | EP1387545  | 02-04-2004                     | SAMSUNG ELECTRONICS CO., LTD. [KR]                 |   | <input type="checkbox"/>            |
|                          | 190                   | EP1556984A2  | 07-27-2005                     | QUALCOMM INC [US]                                  |   | <input type="checkbox"/>            |
|                          | 191                   | GB2373973A   | 10-02-2002                     | TOSHIBA RESEARCH EUROPE LIMITED INCORPORATED [UK]  |   | <input type="checkbox"/>            |
|                          | 192                   | JP03104430   | 05-01-1991                     | NIPPON TELEGRAPH & TELEPHONE CORP.                 |   | <input type="checkbox"/>            |
|                          | 193                   | JP09135230   | 05-20-1997                     | JISEDAI DIGITAL TELEVISION HOSO SYST KENKYUSHO:KK. |   | <input checked="" type="checkbox"/> |
|                          | 194                   | JP09327073   | 12-16-1997                     | N T T IDO TSUSHINMO KK.                            |   | <input type="checkbox"/>            |
|                          | 195                   | JP10028077   | 01-27-1998                     | SATO TAKURO WATANABE SOICHI ABE TAKEO.             |   | <input type="checkbox"/>            |
|                          | 196                   | JP10327126   | 12-08-1998                     | LUCENT TECHNOLOGIES, INC.                          |   | <input type="checkbox"/>            |
|                          | 197                   | JP11252037A  | 09-17-1999                     | LUCENT TECHNOLOGIES INC.                           |   | <input type="checkbox"/>            |
|                          | 198                   | JP2000092009A  | 03-31-2000                     | SONY CORP.   |   | <input type="checkbox"/>            |
|                          | 199                   | JP2001231074   | 08-24-2001                     | NORTEL NETWORKS LTD.                               |   | <input type="checkbox"/>            |
|                          | 200                   | JP2001237751   | 08-31-2001                     | LUCENT TECHONOLOGIES INC.                          |   | <input type="checkbox"/>            |

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|   |    |    |    | Filing Date                | 2003-10-23       |  |
|   |    |    |    | First Named Inventor       | J. Rodney Walton |  |
|   |    |    |    | Art Unit                   | 2618             |  |
|   |    |    |    | Examiner Name              | Simon Nguyen     |  |
| Sheet   | 12 | of | 18 | Attorney Docket No: 030060 |                  |  |

| FOREIGN PATENT DOCUMENTS |                       |  |                                |   |   |                                     |
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|                          |                       | Country Code <sup>3</sup><br>Number <sup>4</sup> Kind Code <sup>5</sup> (if known) |                                |   |   |                                     |
|                          | 201                   | JP200186045  | 03-30-2001                     | LUCENT TECHNOLOGIES, INC.                       |   | <input type="checkbox"/>            |
|                          | 202                   | JP2002111627   | 04-12-2002                     | SONY INTERNATL EUROP GMBH.                      |   | <input type="checkbox"/>            |
|                          | 203                   | JP2002164814   | 06-07-2002                     | NIPPON SOKEN INC., et al.                       |   | <input type="checkbox"/>            |
|                          | 204                   | JP2002176379A  | 06-21-2002                     | JAPAN TELECOM CO LTD.                           |   | <input type="checkbox"/>            |
|                          | 205                   | JP2002204217   | 07-19-2002                     | NTT DOCOMO INC.                                 |   | <input type="checkbox"/>            |
|                          | 206                   | JP200264879  | 02-28-2002                     | SK TELECOM CO LTD.                              |   | <input checked="" type="checkbox"/> |
|                          | 207                   | JP200277098  | 03-15-2002                     | MITSUBISHI ELECTRIC CORP.                       |   | <input type="checkbox"/>            |
|                          | 208                   | JP200277104  | 03-15-2002                     | MITSUBISHI ELECTRIC CORP.                       |   | <input type="checkbox"/>            |
|                          | 209                   | JP2003504941   | 02-04-2003                     | SAMSUNG ELECTRONICS CO LTD.                     |   | <input type="checkbox"/>            |
|                          | 210                   | JP9266466  | 10-07-1997                     | SUMITOMO ELECTRIC INDUSTRIES [JP]               |   | <input type="checkbox"/>            |
|                          | 211                   | JP9512156  | 12-02-1997                     | KONLE TILMAR [DE]                               |   | <input type="checkbox"/>            |
|                          | 212                   | KR1020020003370  | 01-12-2002                     | NTT DOCOMO, INC.                                |   | <input type="checkbox"/>            |
|                          | 213                   | RU2015281C1  | 06-30-1994                     | KONDRASHOV BORIS MIKHAILOVICH.                  |   | <input type="checkbox"/>            |
|                          | 214                   | RU2141168  | 11-10-1999                     | MOTOROLA LIMITED [GB]                           |   | <input type="checkbox"/>            |
|                          | 215                   | RU2152132  | 06-27-2000                     | J NII SVJAZI, et al.                            |   | <input type="checkbox"/>            |
|                          | 216                   | RU2157592  | 10-10-2000                     | QUALCOMM INCORPORATED.                          |   | <input type="checkbox"/>            |
|                          | 217                   | RU2158479C2  | 10-27-2000                     | AL KATEL N V [NL]                               |   | <input type="checkbox"/>            |

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|   |    |    |    | Examiner Name              | Simon Nguyen     |  |
| Sheet   | 13 | of | 18 | Attorney Docket No: 030060 |                  |  |

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|                          |                       | Country Code <sup>3</sup><br>Number <sup>4</sup> Kind Code <sup>5</sup> (if known) |                                |   |   |                          |
|                          | 218                   | RU2168278  | 05-27-2001                     | KORPORATSIJA SAMSUNG EHLEKTRON [KR]             |   | <input type="checkbox"/> |
|                          | 219                   | TW419912   | 01-21-2001                     | INDUSTRIAL TECHNOLOGY RESEARCH INSTITUTE.       |   | <input type="checkbox"/> |
|                          | 220                   | WO00062456   | 10-19-2000                     | SAMSUNG ELECTRONICS CO., LTD. [KR]              |   | <input type="checkbox"/> |
|                          | 221                   | WO0011823A1  | 03-02-2000                     | RADIX TECHNOLOGIES, INC. [US]                   |   | <input type="checkbox"/> |
|                          | 222                   | WO0036764A2  | 06-22-2000                     | NOKIA NETWORKS OY [FI]                          |   | <input type="checkbox"/> |
|                          | 223                   | WO01071928   | 09-27-2001                     | QUALCOMM INCORPORATED [US]                      |   | <input type="checkbox"/> |
|                          | 224                   | WO01097400   | 12-20-2001                     | QUALCOMM INCORPORATED [US]                      |   | <input type="checkbox"/> |
|                          | 225                   | WO0126269  | 04-12-2001                     | SAMSUNG ELECTRONICS CO., LTD [KR]               |   | <input type="checkbox"/> |
|                          | 226                   | WO0169801A2  | 09-20-2001                     | INTERDIGITAL TECH CORP [US]                     |   | <input type="checkbox"/> |
|                          | 227                   | WO0201732A2  | 01-03-2002                     | NOKIA CORPORATION [FI]                          |   | <input type="checkbox"/> |
|                          | 228                   | WO0203557A1  | 01-10-2002                     | IOSPAN WIRELESS INC [US]                        |   | <input type="checkbox"/> |
|                          | 229                   | WO02060138   | 08-01-2002                     | QUALCOMM INCORPORATED [US]                      |   | <input type="checkbox"/> |
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|   |    |    |    | Art Unit                   | 2618             |  |
|   |    |    |    | Examiner Name              | Simon Nguyen     |  |
| Sheet   | 14 | of | 18 | Attorney Docket No: 030060 |                  |  |

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|--------------------------|-----------------------|---|--------------------------------|---|---|--------------------------|
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|                          |                       | Country Code <sup>3a</sup><br>Number <sup>4</sup> Kind Code <sup>5</sup> (if known) |                                |   |   |                          |
|                          | 231                   | WO02069523A1  | 09-06-2002                     | MAGNOLIA BROADBAND INC [US]   |   | <input type="checkbox"/> |
|                          | 232                   | WO02082689A2  | 10-17-2002                     | MOTOROLA INC [US]   |   | <input type="checkbox"/> |
|                          | 233                   | WO02099992  | 12-12-2002                     | QUALCOMM INCORPORATED [US]  |   | <input type="checkbox"/> |
|                          | 234                   | WO0215433A1   | 02-21-2002                     | FUJITSU LIMITED [JP]  |   | <input type="checkbox"/> |
|                          | 235                   | WO03028153  | 04-03-2003                     | ARRAYCOM, INC. [US]   |   | <input type="checkbox"/> |
|                          | 236                   | WO03034646A2  | 04-24-2003                     | NORTEL NETWORKS LTD [CA]  |   | <input type="checkbox"/> |
|                          | 237                   | WO03047140A1  | 06-05-2003                     | FUJITSU LIMITED.  |   | <input type="checkbox"/> |
|                          | 238                   | WO04002011  | 12-31-2003                     | QUALCOMM INCORPORATED [US]  |   | <input type="checkbox"/> |
|                          | 239                   | WO04002047  | 12-31-2003                     | QUALCOMM INCORPORATED [US]  |   | <input type="checkbox"/> |
|                          | 240                   | WO04039022  | 05-06-2004                     | QUALCOMM INCORPORATED [US]  |   | <input type="checkbox"/> |
|                          | 241                   | WO199809395   | 03-05-1998                     | THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY, US. |   | <input type="checkbox"/> |
|                          | 242                   | WO96022662  | 07-25-1996                     | ARRAYCOMM INC [US]  |   | <input type="checkbox"/> |
|                          | 243                   | WO96035268  | 11-07-1996                     | QUALCOMM INCORPORATED [US]  |   | <input type="checkbox"/> |
|                          | 244                   | WO98026523  | 06-18-1998                     | ERICSSON INC. [US]  |   | <input type="checkbox"/> |
|                          | 245                   | WO98030047A1  | 07-09-1998                     | ARRAYCOM, INC. [US]   |   | <input type="checkbox"/> |
|                          | 246                   | WO9809381   | 03-05-1998                     | THE BOARD OF TRUSTEES OF THE  |   | <input type="checkbox"/> |

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|  |    |    |    | Examiner Name              | Simon Nguyen     |  |
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|                          |                       |  |                                | LELAND STANFORD JUNIOR UNIVERSITY.                            |   |                          |
|                          | 247                   | WO9824192A1  | 06-04-1998                     | TRW INC [US]  |   | <input type="checkbox"/> |
|                          | 248                   | WO99016214   | 04-01-1999                     | COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION. |   | <input type="checkbox"/> |
|                          | 249                   | WO9903224A1  | 01-21-1999                     | ERICSSON TELEFON AB L M [SE]                                  |   | <input type="checkbox"/> |
|                          | 250                   | WO9957820  | 11-11-1999                     | ARRAYCOM, INC. [US]   |   | <input type="checkbox"/> |

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|                                 | 251      | 3GPP2 TIA/EIA/IS-2000.2-A, "Physical Layer Standard for cdma2000: Standards for Spread Spectrum Systems," (March 2000), Telecommunications Industry Association, pp. 1-446.   | <input type="checkbox"/> |
|                                 | 252      | BINGHAM, John A.C.: "MULTICARRIER MODULATION FOR DATA TRANSMISSION: AN IDEA WHOSE TIME HAS COME," IEEE COMMUNICATIONS MAGAZINE, PAGES 5-14 (MAY 1990).  | <input type="checkbox"/> |
|                                 | 253      | CHUNG, J. et al: "Multiple antenna systems for 802.16 systems." IEEE 802.16 Broadband Wireless Access Working Group < <a href="http://ieee802.org/16">http://ieee802.org/16</a> >, IEEE 802.16abc-01/31, 2001-09-07, Pages 1-5.                                 | <input type="checkbox"/> |
|                                 | 254      | DENEIRE, Luc, et al.: "A LOW COMPLEXITY ML CHANNEL ESTIMATOR FOR OFDM," PROC IEEE ICC (JUNE 2001), pp. 1461-1465.   | <input type="checkbox"/> |
|                                 | 255      | DIGGAVI, S. et al., "Intercarrier interference in MIMO OFDM," IEEE International Conference on Communications, (August 2002), Vol. 1, pp. 485-489, doi: 10.1109/ICC.2002.996901.  | <input type="checkbox"/> |

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|   |    |    |    | Application Number         | 10/692,833       |
|   |    |    |    | Filing Date                | 2003-10-23       |
|   |    |    |    | First Named Inventor       | J. Rodney Walton |
|   |    |    |    | Art Unit                   | 2618             |
|   |    |    |    | Examiner Name              | Simon Nguyen     |
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|                                 | 256      | GAO, J. et al. "On implementation of Bit-Loading Algorithms for OFDM Systems with Multiple-Input Multiple Output," VTC 2002-Fall. 2002 IEEE 56th. Vehicular Technology Conference Proceedings. Vancouver, Canada, (Sept. 24-28, 2002), IEEE Vehicular Technology Conference, pp. 199-203.   | <input type="checkbox"/> |  |
|                                 | 257      | GORE D. A., ET AL: "Selecting an optimal set of transmit antennas for a low rank matrix channel," 2000 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING. PROCEEDINGS. (ICASSP). ISTANBUL, TURKEY, JUNE 5-9, 2000. NEW YORK, NY; IEEE, US, vol. 5 of 6, 5 June 2000 (2000-06-05), pages 2785-2788. XP001035763, abstract. | <input type="checkbox"/> |  |
|                                 | 258      | HASSIBI, B. et al., "High Rate Codes That Are Linear In Space And Time," LUCENT Technologies, 2002, pp. 1-55.   | <input type="checkbox"/> |  |
|                                 | 259      | Hayashi, K. et al.: "A New Spatio-Temporal Equalization Method Based On Estimated Channel Response," September 2001, IEEE Transactions on Vehicular Technology, Vol. 50, No. 5, pp. 1250-1259.  | <input type="checkbox"/> |  |
|                                 | 260      | ISERTE, P., et al., "Joint beamforming strategies in OFDM-MIMO systems," Acoustics, Speech, and Signal Processing, 1993. ICASSP-93., 1993 IEEE International Conference on , vol.3, sections 2-3, 27-30 April 1993, doi: 10.1109/ICASSP.2002.1005279.   | <input type="checkbox"/> |  |
|                                 | 261      | Jongren, G. et al.: "Utilizing Quantized Feedback Information In Orthogonal Space-Time Block Coding," 2000 IEEE Global Telecommunications Conference, 2(4): 995-999, November 27, 2000.   | <input type="checkbox"/> |  |
|                                 | 262      | KIESSLING, M. et al., "Short-term and long-term diagonalization of correlated MIMO channels with adaptive modulation" IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, Vol. 2, September 15, 2002, pp. 593-597.  | <input type="checkbox"/> |  |
|                                 | 263      | LEBRUN G., et al., "MIMO transmission over a time varying TDD channel using SVD," Electronics Letters, 2001, Vol. 37, pp.1363-1364.   | <input type="checkbox"/> |  |
|                                 | 264      | LI, Ye et. al., "Simplified Channel Estimation for OFDM Systems with Multiple Transmit Antennas," IEEE Transactions on Wireless Communications, January 2002, Vol. 1, No. 1, pp. 67-75.   | <input type="checkbox"/> |  |
|                                 | 265      | MIYASHITA, K. et al: "High data-rate transmission with eigenbeam-space division multiplexing (E-SDM) in a MIMO channel," VTC 2002-FALL. 2002 IEEE 56TH. VEHICULAR TECHNOLOGY CONFERENCE PROCEEDINGS. VANCOUVER, CANADA, SEPT. 24 - 28, 2002, IEEE VEHICULAR TECHNOLOGY CONFERENCE, NEW YORK,  | <input type="checkbox"/> |  |

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|                                 |          | NY: IEEE, US, vol. VOL. 1 OF 4. CONF. 56, (24 September 2002), pp. 1302-1306, XP010608639.  |                          |  |
|                                 | 266      | Office Action in Canadian application 2501634 corresponding to US application 10/610,446, citing CA2690247 dated 2011-02-25 (030031CA).   | <input type="checkbox"/> |  |
|                                 | 267      | SAMPATH, H., et al., "Joint transmit and receive optimization for high data rate wireless communication using multiple antennas," Signals, Systems, and Computers, 1999. Conference Record of the Thirty-Third Asilomar Conference, 24 October 1999 (1999-10-24), XP010373976, pp. 215-219, IEEE, Piscataway, NJ, US.             | <input type="checkbox"/> |  |
|                                 | 268      | The Authoritative Dictionary of IEEE Standards Terms, Seventh Edition, IEEE Press: New York (December 2000), Page 902.  | <input type="checkbox"/> |  |
|                                 | 269      | Translation of Office Action in Japanese application 2005-501686 corresponding to US application 10/375,162, citing JP09135230 dated 2011-02-15 (030075JP).   | <input type="checkbox"/> |  |
|                                 | 270      | U.S. Provisional Appl. No. 60/421,309.  | <input type="checkbox"/> |  |
|                                 | 271      | U.S. Provisional Appl. No. 60/421,428.  | <input type="checkbox"/> |  |
|                                 | 272      | WALES, S.W. "A mimo technique within the UTRA TDD standard," MIMO: Communications Systems from Concept to Implementations (Ref. No. 2001/175), IEE Seminar on, (12/12/2001), pp. 1-8., London, UK.  | <input type="checkbox"/> |  |
|                                 | 273      | Wolniansky, P.W.; Foschini, G.J.; Golden, G.D.; Valenzuela, R.A.; "V-BLAST: an architecture for realizing very high data rates over the rich-scattering wireless channel," Signals, Systems, and Electronics, 1998. ISSSE 98. 1998 URSI International Symposium, pp.295-300, (29 Sep-2 Oct 1998), doi: 10.1109/ISSSE.1998.738086. | <input type="checkbox"/> |  |
|                                 | 274      | WONG, Cheong, et al., "Multiuser OFDM with Adaptive Subcarrier, Bit and Power Allocation," October 1999, IEEE Journal on Selected Areas in Communications, Vol. 17, No. 10, pages 1747-1758.  | <input type="checkbox"/> |  |
|                                 | 275      | WONG K. K., et al., "Optimizing time and space MIMO antenna system for frequency selective fading channels," IEEE Journal on Selected Areas in Communications, Vol. 19, No. 7, July 2001, Sections II and III and V, 1396, pp. 1395-1407.   | <input type="checkbox"/> |  |

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